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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,781	04/16/2004	Jim Holtorf	042933/274650	1296

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EXAMINER
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AL AUBAIDI, RASHA S

ART UNIT	PAPER NUMBER
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2642

DATE MAILED: 03/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/826,781

Applicant(s)

HOLTORF ET AL.

Examiner

Rasha S. AL-Aubaidi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's amendment filed on December 07, 2005 has been entered. No claims have been amended. No claims have been canceled. No claims have been added. Claims 1-34 are pending in this application, with claims 1, 18 and 32 being independent.

### ***Claim Rejections - 35 USC § 102***

2. Claims 1, 10-13, 18, 25-27, 32-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakagawa (JP 404277958A).

Regarding claim 1, Nakagawa shows a bi-stable member for a mobile station (figs. 1-6) comprising:

A first part (5);

A second part (6);

At least one foldable portion (4) comprised of bi-stable materials configured to foldably couple the first part (5) to the second part (6, see fig. 4), the at least one foldable portion (4) is further configured to bias a mobile station (figs. 1-6) between a folded position (fig. 4) and an open position (fig. 5), and the at least one foldable portion (4) includes a substantially flattened transverse cross-section in the folded position (see 4 in fig. 4) and a substantially C-shaped transverse cross-section in the open position (see 4 in fig. 5).

Regarding claim 18, Nakagawa shows a foldable device (figs. 1-6) comprising:

A first functional component (5);

A second functional component (6);

A communication member (electrical connection between 5-6 for microphone and speaker) for electrically connecting the first and second components (5-6);

A bi-stable member (4) for biasing the first and second components (5-6) into an open position (fig. 5 remains open) and a folded position (fig. 4 remains folded), the bi-stable member defining at least one foldable portion (4) having a substantially flattened transverse cross-section in the folded position (see 4 in fig. 4) and a substantially curved transverse cross-section in the open position (see 4 in fig. 5).

Regarding claim 32, Nakagawa shows the steps of:

Providing a bi-stable member (4) for biasing the mobile station (figs. 1-6) between an open position (fig. 5 remains open) and a folded position (fig. 4 remains folded), the bi-stable member defining at least one foldable portion (4) having a substantially flattened transverse cross-section in the folded position (see 4 in fig. 4) and a substantially C-shaped transverse cross-section in the open position (see 4 in fig. 5);

Coupling a first functional component (5) to the foldable portion of the bi-stable member (4);

Coupling a second functional component (6) to the foldable portion of the bi-stable member (4).

Regarding claims 10-13, 25-27, 33, Nakagawa shows:

The first functional component (5);

The second functional component (6);

The foldable portion (4);

A communication member (electrical connection between 5-6 for microphone and speaker);

The first functional component (5) is substantially adjacent to the second functional component (6) in the folder position (fig. 4);

The first functional component (5) is configured relative to the second functional component (6) to define an operating angle in the open position (fig. 5);

The angle is substantially between 90°-180° or 150°-180° (fig. 5, note: 4 is adjustable).

### ***Claim Rejections - 35 USC § 103***

3. Claims 2-9, 14-17, 19, 21-24, 28-31, 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa in view of Daton-Lovett (US 6217975).

Regarding claim 2, Nakagawa shows the foldable portion (4).

Nakagawa differs from the claimed invention in that it does not show the detail of the foldable portion, such as the opposed lateral edges and the stiffening portions, a median region etc.

However, Daton-Lovett, in telecommunications or computer cable ducting, teaches providing a foldable portion having the opposed lateral edges (two edges in fig. 6) and the stiffening portions (right and left curved portions in fig. 6), a median region (bottom portion in fig. 6), the stiffening portions are configured substantially planar with

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the median region in the folded position (fig. 4a) and non-planar in the open position (figs. 4b, 6).

Hence, the concept of providing a foldable portion in a mobile telecommunication station is well taught by Nakagawa, although the detail of the Nakagawa's foldable portion which also functions as cable ducting between the microphone and the speaker was not shown, it would have been obvious for one of ordinary skill in the art to adapt Daton-Lovett's cable ducting in Nakagawa, such that the combination would provide a foldable cable ducting portion which is extendible and strong in tension in a mobile telecommunication station (col. 1, lines 6, 24-25, col. 7, lines 39-48 in Daton-Lovett).

Regarding claims 3-9, 14-17, 19, 21-24, 28-31, 34, the combination of Nakagawa and Daton-Lovett shows:

The foldable portion having a resilient substrate layer and a plastically deformable layer (5.1-5.2 in Daton-Lovett);

The plastically deformable layer comprises a polymer and the resilient substrate layer comprises a strip of metal (col. 5, lines 42-67 in Daton-Lovett);

A plurality of pre-stressed elements, which are aligned substantially axially or transversely (fig. 2) and are adjacent the deformable layer (col. 5, lines 42-67 in Daton-Lovett);

A protective member (i.e. upper portion of the foldable portion 4 in Nakagawa; or 5.1 in Daton-Lovett);

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The communication member, which is enclosed or adjacent a neutral bending line within the foldable portion (electrical connection between 5-6 for microphone and speaker in Nakagawa; col. 7, lines 39-40, 45-46 in Daton-Lovett).

4. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa in view of Olsen (US 4847818).

Regarding claim 20, Nakagawa has a communication member (electrical connection between 5-6 for microphone and speaker).

Nakagawa differs from the claimed invention in that it does not show that the communication member comprises an antenna.

However, Olsen teaches providing a communication member (13-14), which provides electrical connection between the microphone and the speaker and also comprises an antenna (col. 3, lines 30-32 in Olsen).

However, it would have been obvious for one of ordinary skill in the art to modify Nakagawa's communication member to comprise an antenna as taught by Olsen, because both Nakagawa and Olsen are intended to be compact, and having the conductive communication member to carry multiple functions would allow the device to be compact as shown by both Nakagawa and Olsen.

### ***Response to Arguments***

5. Applicant's arguments filed 12/07/2005 have been fully considered but they are not persuasive.

Applicant argues “the specification of the present application defines an axial direction” paragraph 33 page 8. However, it is noted that applicant implying this argument in the language of independent claims 1, 18 and 32. Applicant’s is reminded that these limitations that are recited in the specification are actually not recited in the claim language of claims 1, 18, and 32.

On page 4 of the remarks applicant’s argues “The Nakagawa reference discloses a bendable telephone that defines a bendable portion (4)”. Applicant also adds that the reference “do not teach or suggest a bi-stable member for biasing a foldable mobile station between open and fold position...”. Examiner respectfully disagrees with applicant’s argument because the bendable portion (4) taught in Nakagawa is substantially the same as the “bi-stable member includes a foldable portion” recited in independent claims 1, 18, and 32, both leads to the same end results.

In addition Applicant adds “Finally, Figures 1-6 of the Nakagawa reference do not teach or suggest that the bendable portion (4) of the depicted telephone biases the telephone between open and folded positions”. Again examiner respectfully disagrees with applicant’s argument because Nakagawa specifically teaches the open position as illustrated in Fig. 2 and the close/folded position as illustrated in Figs. 3 and 4. Thus, applicant’s argument is not convincing in view of Nakagawa teachings.



Examiner believes that other applicant's arguments are already addressed in the above rejection.

***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rasha S AL-Aubaidi whose telephone number is (571) 272-7481. The examiner can normally be reached on Monday-Friday from 8:30 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad F. Matar, can be reached on (571) 272-7488.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**Examiner**  
**Rasha S. Al-Aubaidi**  
**Art Unit 2642**  
**03/07/2006**

  
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